

first receiving means for receiving said first control signals from said first remote control device and second receiving means for receiving said signals from the broadcast medium;
storage means for storing said second control signals associated with said second remotely controlled apparatus operatively responsive to said second control signals;
control means for accessing said stored second control signals responsive to selected ones of said first control signals; and
transmitting means for transmitting said accessed second control signals to said second remotely controlled apparatus, whereby said first remotely controlled apparatus remotely controls said second remotely controlled apparatus;
wherein the transmitting means is further operative to transmit said accessed second control signals from the broadcast medium to said first remotely controlled apparatus as second control signals, to remotely control said second remotely controlled apparatus.

REMARKS

In response to the Office Action mailed July 3, 2001, Applicant respectfully requests reconsideration. To further the prosecution of this application, amendments have been made to the claims, and the claims as presented are believed to be in allowable condition.

Claims 1 and 23-40 are pending in this application. Claims 1, 23, 25-29, 31, 32, 34, 36, and 37 have been amended herein to further clarify the claimed invention, and not to distinguish over the cited art, as that is believed to be unnecessary as described further below.

In paragraph 1 of the Office Action, claims 25 and 32-35 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 25 and 32 have been amended to overcome this rejection. Accordingly, withdrawal of the rejection of claims 25 and 32-35 under 35 U.S.C. §112, second paragraph, is respectfully requested.

In paragraph 2 of the Office Action, claims 1, 23-25, 28, 32, and 33 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,817,203 to Tsurumoto (hereinafter Tsurumoto). In paragraphs 3-5 of the Office Action, claims 26 and 27, claims 29-31, and claims 34-40 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsurumoto as applied to claim 1 and further in view of U.S. Patent No. 4,989,081 to Miyagawa (hereinafter Miyagawa), U.S. Patent No. 6,088,355 to Mills (hereinafter Mills), and U.S. Patent No. 5,081,534 to Geiger

(hereinafter Geiger), respectively. Applicant respectfully traverses these rejections as Tsurumoto fails to disclose Applicant's invention as recited in claim 1, and the disclosures of Miyagawa, Mills, and Geiger, even when combined with Tsurumoto, fail to disclose, teach, or suggest the missing information.

1. The Rejection of Claims 1 and 32

Claim 1 is directed to a method of controlling a first and a second remote controlled apparatus. The first apparatus is operatively responsive to first control signals associated with a first remote control device and signals from a broadcast medium. The second apparatus is operatively responsive to second control signals associated with a second remote control device. The method comprising steps of storing said second control signals in said first apparatus, receiving said first control signals from said first remote control device at said first apparatus, accessing said stored second control signals responsive to selected ones of said first control signals, transmitting accessed second control signals to said second apparatus, wherein said first apparatus remotely controls said second apparatus responsive to selected ones of said first control signals from said first remote control device, and receiving, at said first apparatus, signals from the broadcast medium which are transmitted to said second apparatus as second control signals to remotely control said second apparatus.

In the rejection of claim 1, the Office Action asserted that Tsurumoto shows a first apparatus 4 that receives signals from a first remote transmitter 8, wherein the first apparatus also includes a memory 23 which stores control signals for a plurality of second apparatuses 5, 6, and 7. The Office Action further asserted that in response to certain signals from the remote transmitter, the first apparatus transmits a converted control signal to one of the second apparatuses. While not disputing any of these assertions, claim 1 includes further limitations that are neither disclosed in Tsurumoto, nor addressed in the rejection of claim 1.

Preliminarily, Applicant notes that claim 1 requires that the first remote control apparatus and the second remote control apparatus each be operatively responsive to first and second control signals respectively associated with first and second remote control devices. Nowhere does Tsurumoto disclose that the Video Tape Recorder (VTR) 5, the 8mm VTR, or the Video Disk Player 7 is operatively responsive to second control signals associated with a second remote control device, nor does the Office Action allege that it does. Moreover, although Tsurumoto

discloses at column 3, lines 41-42, that the "data necessary for such code conversion" is "stored in the memory 23", nowhere does Tsurumoto disclose a step of "storing said second control signals in said first apparatus" as recited in claim 1. Indeed, Tsurumoto simply indicates that the data stored in the memory 23 is code conversion data, that, in combination with a switching signal of input control circuit 18, is used to convert a code of a remote control signal received at receiver 12 into another code by which the VTR 5 can be controlled (col. 3, lines 43-53).

Tsurumoto does not disclose, teach, or suggest that the data that is stored in the memory 23 is second control signals associated with a second remote control device as recited in claim 1.

More significantly however, Tsurumoto does not disclose, teach, or suggest a step of "receiving, at said first apparatus, signals from the broadcast medium which are transmitted to said second apparatus as second control signals to remotely control said second apparatus" as recited in claim 1. This aspect of Applicant's invention, described at page 5, lines 1-5, page 10, lines 6-13, and page 15, line 20 through page 16, lines 20 of Applicant's specification, is nowhere disclosed, taught, or suggested in Tsurumoto, nor does the Office Action allege that it is.

In contrast to claim 1, Tsurumoto discloses that the data necessary for the code conversion is simply stored in the memory 23; no details of how or from where this code conversion data is received are even addressed (see col. 3, lines 41-42). Further, as clearly described in Tsurumoto at column 3, lines 50-53, the television set 4 transmits the converted code signals to the VTR 5 via a connecting line or bus 17, and therefore does not "remotely control said second apparatus" as recited in claim 1. Accordingly, because Tsurumoto fails to disclose, teach, or suggest all the limitations recited in claim 1, claim 1 patentably distinguishes over Tsurumoto, and the rejection of claim 1 under 35 U.S.C. §102(b) should be withdrawn.

Claim 32 is directed to a remotely controlled apparatus that is operatively responsive to first control signals and signals from a broadcast medium. The remotely controlled apparatus comprises first receiving means for receiving said first control signals from a first remote control device and second receiving means for receiving said signals from the broadcast medium, storage means for storing second control signals associated with a second remotely controlled apparatus operatively responsive to said second control signals, control means for accessing said stored second control signals responsive to selected ones of said first control signals thus obtaining accessed second control signals, and transmitting means for transmitting said accessed

second control signals to said second remotely controlled apparatus, whereby said remotely controlled apparatus remotely controls said second remotely controlled apparatus. The transmitting means is further operative to transmit said accessed second control signals from the broadcast medium to said remotely controlled apparatus as said second control signals, to remotely control the second remotely controlled apparatus.

Claim 32 is not anticipated by the disclosure of Tsurumoto for many of the same reasons as claim 1. For example, nowhere does Tsurumoto disclose storage means for storing second control signals associated with a second remotely controlled apparatus operatively responsive to said second control signals. Instead, Tsurumoto simply discloses that the data stored in the memory 23 is code conversion data, that, in combination with a switching signal of input control circuit 18, is used to convert a code of a remote control signal received at receiver 12 into another code by which the VTR 5 can be controlled (col. 3, lines 43-53).

More significantly however, Tsurumoto does not disclose, teach, or suggest transmitting means as recited in claim 32. As recited in claim 32, the transmitting means transmits accessed second control signals to said second remotely controlled apparatus, whereby said remotely controlled apparatus remotely controls said second remotely controlled apparatus. In contrast to the transmitting means recited in claim 32, the television set 4 disclosed in Tsurumoto transmits the converted code signals to the VTR 5 (or 8mm VTR 6, or Video Disk Player 7) via a connecting line or bus 17, and does not remotely control the VTR 5, the 8mm VTR 6, or the Video Disk Player 7.

As further recited in claim 32, the transmitting means is further operative to transmit said accessed second control signals from the broadcast medium to said remotely controlled apparatus as said second control signals, to remotely control the second remotely controlled apparatus. Nowhere does Tsurumoto disclose, teach or suggest such transmitting means as recited in claim 32. Indeed, Tsurumoto simply discloses that the data necessary for the code conversion is stored in the memory 23. Clearly, Tsurumoto cannot disclose, teach or suggest transmitting means that is operative to transmit accessed second control signals from a broadcast medium as recited in claim 32, when Tsurumoto does not even disclose, teach, or suggest any details of how or from where the code conversion data is received. Accordingly, as Tsurumoto fails to disclose, teach, or suggest all the limitations recited in claim 32, claim 32 patentably distinguishes over

Tsurumoto, and the rejection of claim 32 under 35 U.S.C. §102(b) over Tsurumoto should be withdrawn.

Claims 23-25, 28, 32, and 33 depend either directly or indirectly from one of claims 1 and 32 and patentably distinguish over Tsurumoto for at least the same reasons as the independent claim from which they depend. Accordingly, the rejection of claims 23-25, 28, 32, and 33 under 35 U.S.C. §102(b) over Tsurumoto should be withdrawn.

2. The Rejection of Claims 26 and 27

In paragraph 3, claims 26 and 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsurumoto as applied to claim 1 and further in view of Miyagawa. As Miyagawa fails to disclose, teach, or suggest a step of "receiving, at said first apparatus, signals from the broadcast medium which are transmitted to said second apparatus as second control signals to remotely control said second apparatus" as recited in claim 1, claims 26 and 27 patentably distinguish thereover.

Additionally, one of ordinary skill in the art would not be motivated to combine the teachings of Tsurumoto with that of Miyagawa, as Tsurumoto teaches away from the combination. Specifically, Tsurumoto teaches a remote control system in which a selection switch 21 may be omitted "without increasing the number of operating keys on the commander" (i.e., remote control). (Col. 4, lines 14-21.) Tsurumoto discloses that conventional methods of avoiding a selection 21 generally entail an increase in the number of operating keys 20 to control different kinds of appliances which have certain operating keys in common, but teaches this is to be avoided (col. 3, lines 33-45). In contrast to the explicit teaching of Tsurumoto, the remote commander of Miyagawa "is provided with keys to control all of the apparatus, such as the television receiver 6, the video tape recorder 10, the video disk player 13 and the like" (col. 5, lines 40-46). Indeed, the remote commander of Miyagawa is even provided with "status display keys of different categories" (col. 11, lines 37-42). One of ordinary skill in the art would not be motivated to combine the teachings of Tsurumoto with those of Miyagawa, as Tsurumoto teaches reducing the number of operating keys on a remote commander, whereas Miyagawa teaches providing a remote commander with separate and additional keys to control a number of different apparatus, even though many of those keys have similar functionality. Accordingly, because Tsurumoto teaches away from combination with Miyagawa, and these claims patentably

distinguish over the combination, the rejection of claims 26 and 27 under 35 U.S.C. §103(a) over Tsurumoto in view of Miyagawa should be withdrawn.

3. The Rejection of Claims 29-31

In paragraph 4 claims 29-31 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsurumoto as applied to claim 1 and further in view of Mills. As Mills also fails to disclose, teach, or suggest a step of “receiving, at said first apparatus, signals from the broadcast medium which are transmitted to said second apparatus as second control signals to remotely control said second apparatus” as recited in claim 1, claims 29-31 patentably distinguish over this combination.

Furthermore, the Office Action’s asserted basis for combining Tsurumoto and Mills is not supported by the references. In paragraph 4, the Office Action asserted that Mills, in column 11, lines 13-54 and column 9, lines 9-40 discloses a programmable cable decoder that can be programmed using a smart card or signals received from the broadcast signal. Based upon this purported disclosure, the Office Action asserted it would have been obvious to one of ordinary skill in the art “to have used the programming technique taught by Mills in the Tsurumoto system in order to provide easy programming of the system”.

After reviewing the disclosure of Mills, and particularly the portions cited in the Office Action, Applicant can see no basis for the combination asserted in the Office Action. For example, although Mills does discuss the programming of a set top box, this programming is specifically directed to supporting a variety of graphics modes and resolutions (col. 12, lines 31-33), not programming one remotely controllable apparatus to remotely control another. Further, although Mills discloses that the processing system 10 can include a smartcard interface 80, this smartcard interface is not used in the manner recited in claims 29 and 30, but is used in conjunction with an MPEG-2 demultiplexer “to identify entitlement management messages (EMMs) and entitlement control messages (ECMs) in an incoming MPEG-2 transport stream” (col. 11, lines 13-28). Indeed, the only discussion of remote control in column 11 of Mills simply discloses that the processing system 10 of includes an infrared (IR) receiver 82 which receives a control signal from a remote control device “in a conventional manner.” (Col. 11, lines 55-65.) Nowhere does Mills disclose, teach, or suggest a step of “receiving, at said first apparatus, signals from the broadcast medium which are transmitted to said second apparatus as

second control signals to remotely control said second apparatus” as recited in each of claims 29, 30 and 31, as dependent upon claim 1. Accordingly, because there is no support for the asserted basis of combining the disclosure of Mills with that of Tsurumoto, and because, even if combined, the combination fails to disclose, teach, or suggest, all the limitations of claim 1, claims 29, 30 and 31 patentably distinguish over the combination of Tsurumoto and Mills and the rejection of claims 29-31 under 35 U.S.C. §103(a) over this combination should be withdrawn.

4. The Rejection of Claims 34-40

In paragraph 5 of the Office Action, claims 34-40 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsurumoto as applied to claim 1 and further in view of Geiger.

Geiger is directed to a television receiver having a remote control system capable of controlling associated peripheral devices manufactured by different companies. As disclosed at column 2, lines 13-61 of Geiger, the television receiver “performs a ‘learning process’ in which it learns the previously unknown codes for various functions of a peripheral device from the remote control transmitter supplied by the manufacturer of the peripheral device and stores them.” (Col. 2, lines 22-27.) After the learning process, “when the remote control signal for a particular function of the peripheral device is received from a ‘unified’ remote control transmitter supplied by the manufacturer of the television receiver, the television receiver automatically converts the code (which is not suitable for the peripheral device) of the received remote control signal into a new code, suitable for controlling the respective function of the peripheral device.” (Col. 2, lines 30-40.) Thus, the television receiver serves as a receiving, translation and relay station for the remote control signal sent by the unified remote control transmitter (col. 2, lines 55-61). This is in contrast to the prior art, which either required a unified remote controller that had a large enough memory to store control codes for various devices made by a variety of manufacturers, or which utilized a remote controller that included a transducer capable of receiving control codes from other remote controllers for different devices. (Col. 1, line 57 through col. 2, line 10.)

First, with respect to the rejection of claims 34 and 35 which depend from claim 32, neither Tsurumoto nor Geiger discloses, teaches, or suggests, a remotely controlled apparatus as recited in claim 32 that includes transmitting means operative to transmit accessed second

control signals from a broadcast medium to the remotely controlled apparatus as second control signals, to remotely control a second remotely controlled apparatus. Indeed, as discussed above, Tsurumoto does not disclose, teach or suggest this aspect of Applicant's invention, and neither does Geiger. In fact, Geiger teaches that the remote control signals of a second remotely controlled apparatus are learned from a remote control of that second remotely controlled apparatus, and not transmitted from a broadcast medium as recited in claim 32. Accordingly, as neither Tsurumoto nor Geiger discloses this aspect of Applicant's invention, claims 34 and 35 which depend from claim 32, patentably distinguish over their combination, and the rejection of claims 34 and 35 under 35 U.S.C. §103(a) over Tsurumoto in view of Geiger should be withdrawn.

Second, with respect to the rejection of claims 36-40, these claims patentably distinguish over the combination of Tsurumoto and Geiger. Claim 36 is directed to a remote control system. The remote control system comprises a first remotely controlled apparatus operationally responsive to first control signals associated with a first remote control device and signals associated with a broadcast medium, and a second remotely controlled apparatus operatively responsive to second control signals associated with a second remote control device. The first remotely controlled apparatus transmits said second control signals, to remotely control said second remotely controlled apparatus, responsive to selected ones of said first control signals as selected by said second control signals, and the first remotely controlled apparatus transmits said signals associated with the broadcast medium, to remotely control said second remotely controlled apparatus.

As recited in claim 36, the first remotely controlled apparatus transmits signals associated with the broadcast medium, to remotely control a second remotely controlled apparatus. This aspect of Applicant's invention is nowhere disclosed, taught, or suggested in either Tsurumoto or Geiger. For example, Tsurumoto discloses that the data necessary for the code conversion is simply stored in the memory 23, but no details of how or from where this code conversion data is received are even addressed (see col. 3, lines 41-42). Further, as clearly described in Tsurumoto at col. 3, lines 50-53, the television set 4 transmits the converted code signals to the VTR 5 via a connecting line or bus 17, and therefore does not "remotely control said second remotely controlled apparatus" as recited in claim 36. Similarly, although Geiger does disclose first and second remotely controlled apparatus, each being operatively responsive to respective control

signals, Geiger discloses that the signals that are used to control the second apparatus are learned from its associated remote control, and not transmitted from a broadcast medium as recited in claim 36. Accordingly, because neither Tsurumoto nor Geiger alone or in combination discloses, teaches, or suggests all of the limitations of claim 36, the rejection of claim 36 under 35 U.S.C. §103(a) over Tsurumoto in view of Geiger should be withdrawn.

Claims 37-40 depend either directly or indirectly from claim 36 and patentably distinguish over the combination of Tsurumoto and Geiger for at least the same reasons.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "**MARKED-UP CLAIMS.**"

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believed, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge the deficiency to Deposit Account No. 23/2825.

Respectfully submitted,

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Attorney's Docket No. S1022/8152 JHM

Date: October 2, 2001

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Claims 1, 23, 25-29, 31, 32, 34, 36, and 37 have been amended as follows:

1. (Twice Amended) A method of controlling a first and a second remote controlled apparatus, [the] said first apparatus being operatively responsive to first control signals associated with a first remote control device and signals from a broadcast medium, and [the] said second apparatus being operatively responsive to second control signals associated with a second remote control device, the method comprising the following steps:

storing said second control signals in said first apparatus;

receiving [the] said first control signals from [the] said first remote control device at said first apparatus;

accessing said stored second control signals responsive to selected ones of said first control signals;

transmitting accessed second control signals to said second apparatus, wherein [the] said first apparatus remotely controls [the] said second apparatus responsive to selected ones of [the] said first control signals from [the] said first remote control device; and

receiving, at said first apparatus, signals from the broadcast medium which are transmitted to said second apparatus as second control signals to remotely control [the] said second apparatus.

23. (Amended) The method of claim 1, wherein said first apparatus remotely controls at least one said [one or more] second apparatus.

25. (Amended) A method according to claim 1, wherein said [one or more] second apparatus [include] includes at least one of a video recorder and a television.

26. (Amended) A method according to claim 1, wherein said [one or more] second apparatus [include] includes a sound system.

27. (Amended) A method according to claim 1, wherein said [one or more] second apparatus [include] includes home automation apparatus.

28. (Amended) A method according to claim 1, wherein said second control signals are received in response to a request from said first apparatus from said [one or more] second remote control devices.

29. (Amended) A method according to claim 1, wherein said second control signals [are] can also be received as part of a predetermined sequence from a portable storage medium.

31. (Amended) A method according to claim 1, wherein said second control signals are received as part of a predetermined sequence from the broadcast medium.

32. (Amended) A remotely controlled apparatus, operatively responsive to first control signals and signals from a broadcast medium, comprising:

first receiving means for receiving said first control signals from a first remote control device and second receiving means for receiving said signals from the broadcast medium;

storage means for storing second control signals associated with a second remotely controlled apparatus operatively responsive to said second control signals;

control means for accessing said stored second control signals responsive to selected ones of said first control signals thus obtaining accessed second control signals; and

transmitting means for transmitting said accessed second control signals to said second remotely controlled apparatus, whereby [the] said remotely controlled apparatus remotely controls [the] said second remotely controlled apparatus[.];

wherein the transmitting means is further operative to transmit said accessed second control signals from the broadcast medium to said remotely controlled apparatus as said second control signals, to remotely control the second remotely controlled apparatus.

34. (Amended) The remotely controlled apparatus of claim 32, wherein said first receiving means receives said second control signals from [the] a second remote control device associated with said second remotely controlled apparatus.

36. (Amended) A remote control system comprising:
a first remotely controlled apparatus operationally responsive to first control signals associated with a first remote control device and signals associated with a broadcast medium;
and
a second remotely controlled apparatus operatively responsive to second control signals associated with a second [remote-control] remote control device[.];
wherein said first remotely controlled apparatus transmits said second control signals, to remotely control [the] said second remotely controlled apparatus, responsive to selected ones of said first control signals as selected by said second control signals; and
wherein said first remotely controlled apparatus transmits said signals associated with the broadcast medium, to remotely control [the] said second remotely controlled apparatus.

37. (Amended) The remote control system of claim 36 wherein [the] said first remotely controlled apparatus comprises:
first receiving means for receiving said first control signals from [a] said first remote control device and second receiving means for receiving said signals from the broadcast medium;
storage means for storing said second control signals associated with [a] said second remotely controlled apparatus operatively responsive to said second control signals;
control means for accessing said stored second control signals responsive to selected ones of said first control signals; and
transmitting means for transmitting said accessed second control signals to said second remotely controlled apparatus, whereby [the] said first remotely controlled apparatus remotely controls [the] said second remotely controlled apparatus[.];
wherein the transmitting means is further operative to transmit said accessed second control signals from the broadcast medium to said first remotely controlled apparatus as second control signals, to remotely control [the] said second remotely controlled apparatus.